

“Ten Principles for Nuclear and Radiological Materials Security”

**Remarks of Ambassador Linton F. Brooks
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to the Conference on International Responses to Nuclear and Radiological Security
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Introduction

Good evening. Let me also welcome you to this conference. Our topic, “International Approaches to Nuclear and Radiological Security,” could not be more relevant or more urgent. The issues we face concern every member of the international community. It is, therefore gratifying to meet with participants from over 25 countries – a reflection of the international community’s commitment to address these important issues.

In agreeing that the Department of Energy would co-host this conference, U.S. Secretary of Energy Spencer Abraham sent me here with a mission. He wants me to convey to you the sense of urgency and importance that he, the President, and the entire Administration feel about protecting nuclear and radiological materials. He wants me to remind you of the initiatives the United States has already taken, and urge others to match them. And he wants me to ensure that we learn from you, since we face a global challenge that must be solved globally. Secretary Abraham knows that, while we’ve had some notable successes over the past two years, the problem requires continued personal involvement and commitment by all of us.

I’ve organized my thoughts into ten “principles” for nuclear and radiological security. For most of them I want to tell you how the United States is implementing them and highlight the challenges for the international community. I hope you find this approach useful.

One: The threat continues to evolve

Over the past decade or so, thinking about nuclear materials security problems has mostly focused on concerns over “rogue” states seeking to acquire weapons of mass destruction or the materials needed to acquire them, and on the problems caused by under-secured nuclear materials in the former Soviet Union.

Now, the international community is additionally focusing on threats posed by terrorist networks that would seek such weapons and materials. There is greater recognition now that we’re dealing with an international problem; while the majority of at-risk materials are in Russia, there are dangerous, under-secured nuclear materials elsewhere that could be vulnerable to attack or sabotage. And we’re paying much more attention to the risks associated with the misuse of radiological materials – a concern rarely thought about until the past year.

September 11, 2001 made these concerns more immediate. That day starkly revealed the vulnerability of our cities to attacks, and demonstrated the unblinking commitment that terrorists have to mass destruction -- including their blithe indifference toward killing thousands of innocents.

If weapons of mass destruction, or the deadly materials that contribute to such weapons, became available to these purveyors of hate, we have to assume they would use them. No one can afford to conclude that a future attack would mirror the last.

That is why this Conference is so important. Any of us may be the next victim. The United States has met this challenge by accelerating programs, by increasing funding, and by forging a strong partnership between the Secretary of Energy and his Russian counterpart. How will the international community respond?

Two: The margin of error is small

The IAEA has reported over 400 attempts at illicit smuggling of nuclear materials; some reports are more credible than others, and some involve materials not always considered a threat. But this phenomenon nonetheless tells us a number of things.

First, there are any number of states and sub-state actors that are interested in acquiring nuclear or radiological materials.

Second, we do not know what we do not know. In February 2002, the CIA's National Intelligence Council concluded, "We assess that undetected smuggling has occurred, although we do not know the extent or magnitude of such threats."

And third, even a little success can have a great impact. Terrorists or rogue states know that they do not need exorbitant quantities of nuclear or radiological materials to achieve their ends -- based on IAEA calculations, a relatively small amount of plutonium is enough for a nuclear explosive device. And if the goal is to build a radiological dispersal device, or "dirty bomb," then requirements calculations become all the murkier.

All this tells us that there is literally no margin for error. We need to apply the best technologies, the best know-how, experience, and expertise that we can to this problem. And we can't wait. The United States has met this challenge by accelerating our assistance to other countries under the Second Line of Defense program, by working with our own customs organization, and by expanding research and development to detect nuclear materials. How will the international community respond?

Three: The problem demands a broad array of responses

Nuclear and radiological materials security is a multifaceted problem. Physically securing nuclear materials is critical, but only part of the solution. I find useful the following framework for thinking about how to address nuclear material security:

Nuclear material can be made more physically secure. Border monitoring, export controls, and other measures, including the application of safeguards by the IAEA, also help to ensure that nuclear materials stay where they are supposed to be.

Nuclear material can be consolidated. By reducing the number of sites storing this material, we can reduce its vulnerability to threat or sabotage.

Nuclear material can be reduced. The total amount of this material needs to be reduced - for example, through downblending HEU, or burning plutonium as MOX fuel in nuclear power plants so that the material can no longer be used for nuclear weapons.

The production of this material can be ended. The value of reducing nuclear materials increases greatly, if at the same time we can be sure that no more such material is actually being produced.

What all this tells us is that we need to address the nuclear materials security problem comprehensively – in all its dimensions. The United States is doing just that. How will the international community respond?

Four: There are reasons to focus on Russia

A famous bank robber was once asked why he robbed banks. He answered very simply, “that’s where the money is.”

A January 2001 report noted that the demise of the Soviet Union led to “the dissolution of an empire having over 40,000 nuclear weapons, [and] over a thousand metric tons of nuclear materials.” This report noted that Russia lacked the infrastructure “to assure that chains of command remain intact and nuclear weapons and materials remain securely beyond the reach of terrorists and weapons-proliferating states.”

So we’ve paid a lot of attention to Russia because that is where the material is. And there has been much success. In part, that’s due to Russia’s own strong commitment to reducing nuclear materials threats -- the fact that Russia is co-hosting this conference is a sterling example.

It’s also due to the personal involvement of Secretary Abraham in this effort. He has worked tirelessly with his counterpart, Atomic Energy Minister Alexander Rumyantsev, to accelerate a number of ongoing programs in Russia, break bureaucratic logjams, and identify new initiatives to address at-risk nuclear materials. As a result of his efforts, Russia and the United States have enjoyed unprecedented cooperation over the past few years, and this has led to a number of accomplishments.

- Security upgrades to MinAtom’s nuclear weapons complex should be completed in 2008. Security upgrades to the Russian Navy’s entire nuclear weapons arsenal, about 4,000 total weapons, should be completed by 2005. We’re way ahead of previous estimates for completing this work.

- The United States and Russia have agreed to dispose of 68 metric tons of US and Russian surplus plutonium from nuclear weapons, half of which will come from Russia. This will be enough material for over 10,000 nuclear weapons.
- Under the U.S.-Russian HEU Purchase Agreement, we have eliminated over 140 metric tons of Russian weapons-usable HEU. Altogether under this agreement, 500 metric tons will be eliminated.
- The United States and Russia will dispose of additional nuclear material, beyond that stipulated in existing agreements. We have agreed, for example, that the United States will purchase additional HEU from Russia. We're going to do more.
- We're going to shut down the three reactors in Russia that are still producing about 1.5 metric tons of weapons-grade plutonium every year -- about one bomb's worth every other day.
- Over the next year, border security upgrades will increase from four to 21 sites in Russia and Ukraine -- an important contribution to international efforts to curtail nuclear smuggling.
- The United States led the way in establishing the G8 Global Partnership to provide a mechanism for continuing these important non-proliferation tasks.

The United States and Russia have taken major steps to secure Russian materials, but much work remains. How will the international community respond?

Five: This is a worldwide problem demanding international solutions

Nuclear materials security is a worldwide problem. And I'm gratified to see steps being taken by many countries. The United States is helping where it can.

Working with the United States, for example, Ukraine has made significant progress in protecting nuclear materials at critical Ukrainian facilities. In a few days, we will mark the completion of physical protection improvements at the Nuclear Research Institute in Rez, in the Czech Republic. And the United States will soon join Uzbekistan in marking the completion of security upgrades that greatly reduce the vulnerability of sensitive facilities in that country.

The international cooperation that was demonstrated in the recent effort at the Vinca research reactor in Yugoslavia, which led to the removal of material for nuclear weapons, was exemplary. Russia, Yugoslavia, the IAEA, and an American non-governmental organization, the Nuclear Threat Initiative, all made critical contributions to this operation.

Vinca laid bare the potential security risks posed by HEU fuel at former Soviet-supplied research reactors in approximately 17 countries. This fuel needs to be repatriated to Russia, where it can be downblended or otherwise controlled to reduce the threat of theft or diversion. Responding to direction from Presidents Bush and Putin to examine ways to accelerate the reduction of nuclear materials, the Department of Energy and the Russian Ministry of Atomic Energy have agreed to seek ways to accelerate the conversion of these reactors and the removal of fuel posing proliferation risks.

The G-8 Global Partnership well demonstrates how nations can cooperatively address nuclear and radiological material security challenges. In addition to committing up to \$20 billion over the next ten years to pursue critical non-proliferation projects, the G-8 has established important principles to guide its efforts.

These principles deal with such priorities as enhancing physical protection and developing and maintaining effective border and export controls, and make clear the G-8's commitment to disposing of stocks of fissile material no longer needed for defense purposes. The United States is eager to work with its G-8 partners to carry out the ambitious goals that the Global Partnership has established. How will the international community respond?

Six: The potential misuse of radiological sources needs to be addressed

I've focused my comments on nuclear materials security. That's appropriate, given the gravity of the potential threats we're discussing. But September 2001 has also led many of us to think more about the potential misuse of radiological sources that are much more abundant and also less secure. These materials would be used to make Radiological Dispersal Devices, or so-called "dirty bombs."

As Secretary Abraham has stated, "While dirty bombs are not comparable to nuclear weapons in destructiveness, they are far easier to assemble and employ. And while the physical destruction they would cause is comparable to conventional explosives, the disruption caused by widespread contamination is much greater. And it is disruption that terrorists seek."

Last May, Secretary Abraham and Minister Rumyantsev determined to take a close look at radiological materials, and their potential misuse and to work cooperatively to improve security of those materials. In June, the United States and Russia joined with the IAEA to expand our efforts to secure radiological sources in other states of the former Soviet Union. And two weeks ago the Secretary proposed an international conference to promote greater international appreciation of this potential danger and share what the Russians and we have learned.

The United States is leading the way in dealing with this new threat. How will the international community respond?

Seven: The IAEA's contribution is invaluable

The IAEA is uniquely able to help nations understand the gravity of nuclear material security problems in their own countries. The IAEA's advisory services significantly assist member states in improving the physical protection of nuclear materials, and the IAEA has facilitated any number of international training courses to promote physical protection. The United States has worked with the IAEA to help conduct 30 training courses on physical protection, and over 800 students from more than 60 countries have attended these courses.

The IAEA is also leading the international effort to revise the Convention on the Physical Protection on Nuclear Material, and we look forward to concluding that effort.

The IAEA is also helping countries deal with radiological security issues. The IAEA's nuclear security Action Plan lays out important steps to enhance the protection of radiological, as well as nuclear, materials. The IAEA can help member states identify resources needed to safely dispose of unneeded radiological materials and make available its invaluable experience, as member states address radiological source concerns.

But the IAEA needs resources to do its job. At the recent General Conference, Secretary Abraham spoke on behalf of the United States and urged an increase in the IAEA safeguards budget. How will the international community respond?

Eight: But materials security is ultimately a national responsibility

If I have one key message to convey, it is that the responsibility for progress falls on the shoulders of each individual nation. International organizations, while important, cannot complete this task on their own. Those of us that actually have plutonium and HEU that could be used in weapons programs bear special responsibilities. But there is a role for all nations.

We need to think through reinforcing and mutually beneficial initiatives that are appropriate for the international community, even as we seek unilaterally to strengthen the security of nuclear and radiological materials.

It is incumbent upon all of us to move beyond words to deeds. Much is already being done but much more needs to be accomplished. One purpose of this conference is to help each of us chart appropriate courses of action. The United States has reviewed and improved security since the attacks of September 2001. Now we call on other states to take comparable steps where needed, including for civil materials. How will the international community respond?

Nine: This is a long-term effort

The materials security challenges that will be discussed over the next few days do not lend themselves to short-term solutions. Some of these materials have half-lives of

tens of thousands of years. There are multiple dimensions to these problems and numerous strategies need to be employed, on multilateral, bilateral, and unilateral levels, to address them.

Resources need to be committed, equipment needs to be procured and facilities built, and all of us must work together to develop solutions to these problems that will withstand the test of time. And we need to address many aspects of the problem at once.

All that said, these problems should not be judged as too overwhelming to address. Any journey must begin with small steps – this one is no different. Through the cooperative programs I have described, through its leadership in establishing the Global Partnership, and through the personal involvement of the President and his cabinet, the United States is setting in place long-term programs for a long-term challenge. How will the international community respond?

Ten: Success *is* possible

Despite the enormity of the challenge, success is possible – at least in terms of reducing and controlling the challenges. The steps that the international community has taken, or is planning to take – in Russia, in working with the IAEA, through bilateral relationships and international partnerships such as the G-8, through unilateral efforts – demonstrate the seriousness with these problems are being addressed, and that is all to the good.

Working together, we can make the world safer. This Conference can play a role in helping to accomplish that. Along with all my colleagues, I look forward to working together over the next three days to find effective strategies to address the challenges ahead. Success is not only possible, it is an imperative. We owe our peoples and our descendants nothing less.

Thank you very much, and best wishes for a successful conference.